

characteristics such as stage and grade at diagnosis, and in part from the survival disadvantage for AA in the general population.

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PROSTATE CANCER RISK: MEDICAL HISTORY, SEXUAL, AND HORMONAL FACTORS

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PURPOSE: Various medical conditions, infectious agents, sexual, and hormonal factors have been investigated in relation to prostate cancer risk. Given inconsistent results these factors were examined in this study.

METHODS: This population-based case-control study was conducted in northeastern Ontario from 1995 to 1999. Cases ($n = 760$), aged 45 to 84 at the time of diagnosis, were identified through the Ontario Cancer Registry and diagnosed between January 1995 and December 1998. Controls ($n = 1,634$) were age-frequency matched and were selected from the northeastern Ontario population using published telephone listings. Mail and telephone questionnaires were used for data collection. Logistic regression was used to investigate risk associated with: 1) particular medical conditions and 2) hormonal and sexual factors. Cases were subdivided into those with symptoms of prostate disease and those with few or no such symptoms.

RESULTS: Symptomatic cases who reported a history of venereal disease (age-adjusted odds ratio (OR) = 2.11, 95% confidence interval (CI) 1.18–3.80) and vasectomy (age-adjusted OR = 1.49, 95% CI 1.14–1.95) were at significantly increased risk of prostate cancer. Asymptomatic cases who reported a check-up at least once a year were at increased risk (age-adjusted OR = 1.46, 95% CI 1.08–1.98). Asymptomatic and symptomatic cases who reported a history of prostate cancer in a first degree relative were at increased risk (age-adjusted OR = 2.41, 95% CI 1.64–3.54; age-adjusted OR = 3.18, 95% CI 2.28–4.45, respectively). Symptomatic cases with a history of urinary tract infection were at non-significantly increased risk (age-adjusted OR = 1.31, 95% CI 0.98–1.76). Heart disease, mumps, allergies, and height were generally not associated with prostate cancer.

CONCLUSIONS: A history of venereal disease, family history of prostate cancer, and vasectomy were positively associated with prostate cancer. Further investigation of selected medical conditions, sexual, and hormonal factors in prostate cancer development is warranted.

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GEOGRAPHIC VARIATION IN PROSTATE CANCER MORTALITY RATES AMONG WHITE MALES IN THE UNITED STATES

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PURPOSE: The most recent atlas of cancer mortality in the United States revealed elevated prostate cancer mortality rates among white males in the northwest, Rocky Mountain, northcentral, and southeast areas, as well as New England, especially during the 1970-94 period. We wanted to test whether this observed geographic variation was simply due to chance or not.

METHODS: We used a spatial scan statistic using mortality data for 506 state economic areas.

RESULTS: There were four significant clusters with elevated risks of prostate cancer mortality ($P < 0.001$). The most prominent cluster was in the northwestern quadrant of the country, followed by clusters in New England, the midwest, and southeast regions. Within the northwestern cluster, we also detected seven significant sub-clusters ($P < 0.05$).

CONCLUSIONS: We concluded that the observed geographic variation of prostate cancer mortality is indeed real, and deserves further study into the underlying determinants.

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DISTINCT DISTRIBUTION OF RARE US KSHV GENOTYPES IN SOUTH TEXAS: IMPLICATIONS FOR KSHV EPIDEMIOLOGY AND EVOLUTION

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PURPOSE: Kaposi's sarcoma-associated herpesvirus (KSHV, or human herpesvirus 8) is etiologically associated with Kaposi's sarcoma (KS) and primary effusion lymphoma (PEL). Although previous studies have assessed the geographic distribution of KSHV genotypes, the molecular epidemiology of KSHV remains largely unknown. The purpose of the present study was to examine the genotypes of KSHV isolates from KS patients in South Texas.

METHODS: Eighteen KSHV isolates from 16 KS and 1 PEL patients in South Texas were collected between 1996 and 1998 and analyzed for KSHV subtypes by PCR sequencing of ORFK1 gene and KS330 fragment, and by PCR of ORFK15 gene. DNA sequences were aligned with known sequences and KSHV subtypes were assigned based on sequence variations.

RESULTS: Of 18 KSHV isolates, 13 exhibited C subtype, and 5 exhibited A subtype in ORF K1 gene. ORF K15 genotyping showed that 10 of the isolates exhibited M form, of which 9 had C3 subtype. A unique C subtype isolate was found and classified as C6 clade. All of the M form KSHV isolates were found among KS patients over 50 years of age. Conversely, all KS patients under 40 years of age had only the P form KSHV isolates.

CONCLUSIONS: In South Texas there is a distinct distribution of C3/M KSHV isolates, which are rarely found in other US regions (1 of 29). The C3/M KSHV genotype is more prevalent in HIV-negative elderly KS patients while the P-form of KSHV is more common among many young AIDS-KS patients.

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